

11

THE NATIONAL PRINTING OFFICE

AT

LISBON

PHILADELPHIA EXHIBITION OF 1876



THE NATIONAL PRINTING OFFICE

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LISBON

AN HISTORICAL AND STATISTICAL NOTICE

WITH THE


CATALOGUE OF THE PRODUCTS EXHIBITED



LISBON

NATIONAL PRINTING OFFICE

1876



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The National Printing Office General Administration obeying to the orders of His Most Faithful Majesty's Government, came up to occupy also a modest place in that great and patriotic festival of universal Industry, whose magnificent theater is the glorious cradle of North American independency and liberty. Such a conduct was advised, as one should say, by the extraordinary rewards obtained by the Establishment in many Universal and International Exhibitions (London 1862, Paris 1867, Oporto 1865, and Vienna 1873), distinctions of which it expects not to be found undeserving in the splendid Centennial Exhibition at Philadelphia.

Although the General Administration could desire to offer to the control of the International Jury a more numerous, varied and complete set of products in the several branches of graphical arts, they believe nevertheless the objects exhibited to be sufficient to give as exact an idea as possible of the present state and improvements of the Lisbon National Printing

Office. In this short Notice several statistical and historical éclaircissements are contained, as complementary elements of information to the International Jury. Thus the General Administration think to have done their duty as far as was compatible with the little time allowed them.

Finally the National Printing Office General Administration hope to deserve the highly-intelligent and enlightened International Jury's impartial and benevolent appreciation, whose verdict will prove a fresh incentive to its progressing with unalterable enthusiasm in the career of improvements.

HISTORICAL AND STATISTICAL NOTICE

I

By the greatness of homeric deeds and the boldness of heroic enterprize, our daring forefathers were able to obtain imperishable fame; but although history, not always impartial almost only wreathes them with the soldier's laurel, setting them abreast with the bravest warriors, and most intelligent and adventurous navigators both of ancient and modern ages, yet it is certain they no less were distinguished by their love of letters.

Material errors, wrong measures, and dreadful disasters have gradually produced the decay, and hastened the ruin of our far extended power. We at length lost our command over the seas, the luster of our martial glory faded, the awfulness of our name faded, but that congenite propensity, as we may term it, to intellectual cultivation very far from being thereby enfeebled, appears to have been growing stronger and stronger, in proportion as our armies decreased, and our fleets, the pride of the ocean, waned; and it has been down to these days preserved in such a manner alive, that to the Portuguese literature cannot be denied a conspicuous place among the most rich and valuable in Europe.

The catalogue of scientific and literary works, produced and published by our countrymen since the revival of letters is sufficient to fill thick volumes; and it may be asserted that no department of human knowledge exists, which has not been honourably tried or inquisitively explored, each of them affording works most appreciable and praiseworthy in the opulent and harmonious language of Camões and Fr. Luiz de Sousa, of Vieyra and Bernardes. And when no better proofs were drawn from the profound consideration of our national annals, the single incontrovertible fact would suffice, that the typographical art, the wonderous discovery of Guttenberg, had been

friendly harboured in Portugal many years before it succeeded crossing the frontiers of other nations so powerful and civilised otherwise: Prussia, for instance, only knew and adopted it in 1506; and in Russia another evidence to what we have said, it was introduced in 1565.

Truly, even in the case we could not admit the opinion of those who, prompted rather by a blind spirit of patriotism, than by the strict principles of sound reasoning and best criticism, suppose typography to have been exercised in Portugal in 1470 or 1474, Leiria being the first city in the whole Iberian peninsula that has used a form impression or metal types, it is strongly evinced that a regular typographical office was existing in Lisbon at least about the year 1489, the impression date of the Hebrew Pentateuch, when that sublime art was not at all a common one without Germany, its glorious cradle.

Under the patronage of our monarchs, as typography really was, and aided by public favour, it not only continued from that year to be cultivated and flourishing, but also, in a short time, Leiria, Oporto, Braga and Coimbra, boasted the possession of the great civilizing instrument in the thriving ground within their noble walls.

Nor was the European continent of the Portuguese empire the only happy one influenced by typographical benefits. Goa, the blossoming metropolis of our colonial wide-extended dominions in Asia, had it in its bosom in 1561; and it was not long, before Portuguese hands had planted it in fruitful Ceylon, commercial Macao, and even in the remote Japanese empire.

The first printing masters of course are come from Germany; the types too, perhaps, and the utensils and presses indispensable. Initiated by such primitive printers, our artists were in a short time enabled to imitate, if not to excel them; also it is observable that all typographical offices in Portugal during the 16.th, 17.th and 18.th centuries were directed by Portuguese printers, or by the descendants of the German masters, established and naturalized in the country, therefore to be considered as Portuguese; and it may be affirmed in dauntless truth that the Barreiras, the Marizes, the Lyras, the Alvares, the Craesbecks, the Galvãoes, the Deslandes, the Manescaes, the Amenos, the Silvas, and others have nowise tarnished the splendour of their art; on the contrary they have raised many of our editions to, or very near, the same level with those of more opulent, and in certain respects more advanced nations.

But whatever progress and development typography obtained in Portugal, all was the result of private impulse, in the beginning, and of the most persevering efforts in the pursuit.

A school properly so called, an establishment destined to the practice and perpetuation of precepts or rules the best and well tried by reason, without aiming at material and illiberal concerns, often the most irreconcilable foes to artistical improvements, such a nursery existed not for typography. It was the marquis of Pombal, the great Minister of King D. Joseph I, who first conceived and put in execution the noble thought of creating an establishment that should be a pattern and school of typography; where the most perfect processes might be taught and practised, that art might be cultivated by itself, and where it should be particularly aimed at, in order to promote and facilitate the general diffusion of public instruction, to print for the most moderate prices such books as were to be used in the schools recently opened or restored: this may be termed the substantial prologue of the vast reform of studies, not long after undertaken and brought to conclusion with signal wisdom and success. These patriotic and civilizing views of the accomplished statesman are perspicuously expressed in a charter dated December 24.th 1768, whereby the foundation of the Royal Printing Office, now the National Printing Office of Lisbon, is determined.

II

The National Printing Office was established in a vast building, the mansion house of D. Fernando Soares de Noronha, and began from the earliest days of the year 1769 regularly working, under the technical management of Miguel Manescal da Costa, an eminent printer, whose office had been procured for the State: João de Villeneuve's Letter-foundry being annexed, who was then at Lisbon in charge of the Board of Trade, and the establishment of a school of engraving provided, the care of which was entrusted to Joaquim Carneiro Silva, a renowned engraver. By a decree dated July 31.st 1769 a playing cards manufactory was also instituted, and annexed to the Royal Printing Office, the produce of which swoln from exclusive privilege constituted down to 1833 one of the most important receipt additions.

The administration of Miguel Manescal da Costa continued for a long period of thirty two years, during which the eminent printer constantly justified the well deserved trust, and the great credit he had gained.

When the various offices of the Royal Printing Office were effectively opened to practice, 56 employees and workmen were reckoned in all. This number, increased to 82 in 1801, undeniably reveals that a progress had taken place, but receipt pro-

duce will otherwise warrant its reality more forcibly; since it was in 1770 £ 3.515 and amounted to £ 8.550 in 1801.

After the death of Miguel Manesal da Costa, a Committee was invested with the administration of the Royal Printing Office, under the denomination of Administrative, Oeconomic and Literary Board, composed of persons most qualified, among whom were most excelling the Literary directors Custodio José de Oliveira, Joaquim José da Costa e Sá, Hypolito José da Costa Pereira and Fr. José Marianno da Conceição Vellozo.

The new mode of superintendency did not answer in every respect all that had been thought and expected. But in spite of a certain disagreement of the Commissioners with one another, in spite of the invasion of the French army, the retreat of the Royal Family to Brasil, and the seat of government removed to Rio de Janeiro, some steps were still taken onward. To this period belongs the device of establishing a manufactory of paper at the charge of the Royal Printing Office, and the scheme was realized by a decree, dated August 7.th 1802, which determined it to be set up near the river of Alemquer. Unhappily however, after scarcely a few supplies of tolerable paper had been received, it was shut on account of the war, and then almost entirely destroyed and abandoned, only to revive in our present days at the expense of a private enterprize.

The engraving school was an object of solicitude for the Committee; and on the death of Joaquim Carneiro Silva it was put under the direction of the celebrated engraver Francisco Bartolozzi, invited by the Government to that end, and with a munificent pension. The manufactory of playing cards, which, continued yielding a most exuberant source of profit, received also considerable improvements.

In the last year of the Committee administration (1810) the number of individuals employed had been raised to 98, and the revenue amounted to £ 10.000.

Experience having too evidently exposed the fruitlessness of a collective administration, the Committee was succeeded by Joaquim Antonio Xavier Annes da Costa, in the character of General Administrator, who before had executed the functions of Treasurer to the Administrative, Oeconomic and Literary Board. Annes da Costa was very active; he endeavoured signally to accomplish the mission he had been intrusted with, and indeed many honourable documents remain, which testify his zeal for the public service. To him we are indebted for introduction of Stanhope handpresses in Portugal; great repairs to the edifice, the proficuous possession of which was procured for the State upon his proposal; and adequate regulations for the discipline and service of its various offices.

The Royal Printing Office had in 1811 its amount of revenue £ 11.000; however, in consequence of the painful conditions of the country, now compelled to fight a foreign foe, now devoured by civil war, the sum was gradually diminishing till it descended in 1832 to £ 5.000.

From 1833 to 1835 persons eminent for their literary knowledge as well as political character, such as Rodrigo da Fonseca Magalhães, Antonio de Oliveira Marreca, and José Liberato Freire de Carvalho, presided over the management of the National Printing Office, where once more from December 11.th 1835 to June 27.th 1836, the Committee system was tried, but with inconsiderable success: unhappily the commotions of that time did not allow them to display their light and competency, by promoting the aggrandizement of the institution, which notwithstanding is indebted to the first, when a Minister of state, for his vigilant protection.

By a decree, dated August 24.th 1838, Freire de Carvalho was dismissed, and José Frederico Pereira Marécos nominated General Administrator of the establishment. To this gentleman, endowed with a superior and enlightened understanding, our National Printing Office undeniably owes its having commenced a new phasis of constant progress. Indefatigable in providing for the wants of the institution, acquainted with the deficiencies of its various offices, glowing with a desire to see them brought to a due degree of perfection, he resolved, the better to succeed in his noble attempt, to undertake a voyage into foreign countries. In fact, leaving Lisbon on the 9.th of July 1843, he visited the chief typographical and lithographical offices in England, France and Belgium: he studied the most recent processes; and after having purchased many and valuable articles and machinery, including a fine two-cylinders mechanic press, and a steam engine, he returned to Lisbon on the 19.th of December the same year.

After a struggle maintained with rare energy for implanting reforms which were opposed by vicious habits and inveterate routine, when on the verge of reaping some of the long wished fruits of his fatigues, death intercepted his progress, at a blooming age, and when art and the country had still so much to expect from his talent and zeal in liberal service!

To fill the place he left vacant, Firmo Augusto Pereira Marécos, an honorary member of His Most Faithful Majesty's privy-council, was appointed General Administrator by a decree dated September 27.th 1844. Avowing the same progressive principles, and animated by the same warm desire of prosecuting with unremitting perseverance the improvement that was then merely sketched, after some years spent in the labo-

rious study of practice through the various offices of the institution, seizing every opportunity to detect even the less palpable though real wants of them all, he also, after the noble example of his predecessor, by the auspices and authorization of the Government, undertook a voyage abroad. He also visited England, France and Belgium (from August 14.th to December 14.th of the same year 1854), and with scrupulous care observed every thing most remarkable in typography. He procured a large machine we stood much in need of, and two handpresses; and at Paris he had the opportunity to get an intimate acquaintance with the worthy Director, Secretary and Chief-work masters in the Imperial Printing Office; a circumstance which has proved greatly beneficial to our institution.

The management of the actual functionary, presiding over the direction of the National Printing Office, may be rightly considered a continuance or rather an accomplishment of the anterior administrator's; and we do not therefore separate them, in the short account we are going to give of the improvements realized within this period. Many and important ones have indeed been effected: the method of book-keeping and oversight service, better regulated, has rendered the complicate transacting of affairs most easy and punctual to the advantage of public exigencies. The edifice has been adapted conveniently and ameliorated as far as possible. Materials and utensils, of a new model, have been substituted to the old; many of the ancient presses have resigned their place to others more perfect. The Letter-foundry set up in vast rooms has had its collections enriched with thousands of punches and matrices of characters and vignettes, apparatuses of galvanoplastic works and stereotypy, excellent moulds and casting instruments. The types were recast after a uniform system, and their prices reduced to reasonable terms. The manufactory of playing cards, almost annihilated in later years, was roused from drowsiness into action. The lithography dated scarcely from 1836, and for some years without advance, has had the number of presses and other implements considerably increased.

Instead of the vulgar method of teaching apprentices, in typographical, as well as in almost all industrial establishments, special schools were created for the respective offices and committed to the care of Managers expressly appointed; young men being there instructed who are afterwards to exercise the art in each department as common office-workmen. These schools are being productive of very excellent results.

A beneficent society was constituted in April 1846; this laudable institution, most effectually promoted by the actual Administrator, to whom it verily owes its existence, was

founded for the purpose of affording supplies of money and medicines, as well as surgical treatment to the employees and workmen, either sick or disabled. The association reckoned in December 31.st 1875 a number of 325 associates; and it is now possessed of a considerable fund.

In 1857 two most conspicuous artists J. M. Velloso and F. P. Nogueira were sent to Paris that they might study at the magnificent offices, in that capital, specially at the Imperial Printing Office of France, the most modern and perfect processes, both artists accomplishing their mission in a manner really much to their honour, and to the full confirmation of the trust they had deserved.

As to what relates to the economical conditions of this national offices ciphers will speak more forcibly and shortly than we in vulgar discourse can do to represent it such as it is. In fact considering it, as to the number of individuals employed, we find that this consisted

in 1848 of 219 Employees and workmen		
in 1856 of 211	ditto	ditto
in 1865 of 290	ditto	ditto
in 1875 of 304	ditto	ditto

As to the revenue we observe that in the economical years

from 1848 to 1849 it was	£ 9.000
from 1856 to 1857	£ 16.420
from 1865 to 1866	£ 25.823
from 1874 to 1875	£ 28.570

III

Before we enter on giving some information of what relates to the offices, it is proper we should give an idea how the mechanism of administration in general is regulated.

The National Printing Office belongs to the State: the produce of its impressions for the public department as well as for private individuals, that also of the sale of types and playing cards, and that besides of its fund editions, constitute the different articles of income, which afford all the expenses of speculation, acquisition of machinery, materials, repairs to the building, etc.

A superior functionary nominated by the King presides over the establishment, who is directly answerable to the Government for the management of it, presenting regular accounts before the Home ministry and the court competent.

An accountant's office, with five employees, answers the

whole task, in the expedition of affairs, the receiving of the income, and the oversight of the expenditure. Four keepers at the command of that office have the care of repositories for printed works, types, paper and other materials, and of the indispensable accountbooks of their business. External commissioners in Lisbon, Oporto, Coimbra, Funchal, Rio de Janeiro, Bahia complete this system, as delegates and agents of the administration in the respective localities.

All these employees, those of the accountant's office excepted, whose nomination is the King's, are appointed by the Administrator; and by him are also nominated the Managers, Masters and Assistant masters of the various offices. In charge to one of the five first named employees there is a library, at which is entered one copy of every work printed in the establishment. This library contained in 1875 about 11.000 volumes.

All direction derives from the administrative chief, and accountant's office as to what relates to economical management, and in each office is a Manager or Master, charged with the executing of the instructions, transmitted to him, and superintending, in accordance with the orders and regulations issued, all the technical service in his respective department.

Four are the principal departments in the National Printing Office: the Typographical, the Letter-foundry, the Lithographical and the manufactory of playing cards.

The Typographical department is the most important, and comprehends at present, besides the Manager's cabinets three large composing-rooms; many rooms for the typographical handpresses, printing-machines and steam engine; for drying and smoothing the paper and the prints; for bookbinding and bookstitching the paper; and all necessary dependencies; warehouses for typographical materials and for paper stock, etc.

In these various sections are now daily employed: 10 Managers and Masters; 8 Readers and Correctors; 81 Compositors; 42 Pressmen; 22 Apprentices; 17 Bookbinders, Hydraulic pressmen, etc.; 12 Carpenters, Mason, and Porters. Of these 77 get wages and 114 work by job: the maximum of salary may be computed at 10 shillings daily, and the minimum 2 shillings.

There are put up and work constantly in the various compartments: 2 English Stanhope handpresses; 1 Albion press by Hopkinson; 8 French Stanhope presses by Gaveaux, Nicolais and Capiomont & Dureau of Paris; 5 Handpresses by Sigl, of Berlin; 2 Columbians presses by Gaveaux, one being of extraordinary size; 1 single cylinder printing machine by Napier, of London; 4 double cylinders printing machines, by Gaveaux, Nicolais, Perreau & C.^o and Alauzet, of Paris; 1 single

cylinder two colours improved printing machine, by Dutartre, of Paris; 1 Scandinavian press by Hopkinson & Cope, of London; 2 Liberty treadle job printing presses by Weiler & Degener, of New York. A six horse power steam engine gives motion to all these printing machines, the Liberty and the Scandinavian presses excepted. 4 Proof machines, three have been made by A. F. de Castro after the Dupont's system; a *coupoir biseautier* by Derriey, of Paris; two others, new model, constructed in the office; two calenders by Laurent & Debernny and Capiomont & Dureau of Paris; 1 Iron press for packing the prints by Collares, of Lisbon; two Lever cutting machines by Poirier, of Paris; 1 six cylinders machine to grind printing colours; 1 powerful hydraulic smoothing press with a railroad and four other on wood auxiliary presses; 588 cases, 126 frames, 292 iron chases, etc. The types in use amount to 60.000 kilogrammes. The paper spent in 1875 was 12.572 reams (188.250 kilogr.), a value nearly of £ 10.000 almost all from the national manufactories of Abelheira, Alemquer, Thomar and Louzã. All compartments of the Typography are profusely lightened by gas.

The late inventory states the existence of a value not inferior to £ 40.000, the fund editions and the paper stock included.

The Letter-foundry had ever had a certain importance, but it must be confessed that it is only from 1844 or rather from 1850 that its most remarkable progress dates, stimulated as it was by the concurrence of two French Letter-foundries established at Lisbon. Our Letter-foundry has at present attained a very notable degree of increment. We shall give now the following statistical note that its improvement and movement may be duly appreciated.

Years	Types produced
1847	kilogr. 2.419
1856	" 10.809
1871	" 16.896
1875	" 30.262

Although the prices of types and vignettes had been several times reduced, the income realized was gradually growing as it is observable from the above little table, a proof surely not unconvulsive of the rising progresses in this valuable branch.

Economical years	Income
1846—1847	£ 725
1855—1856	£ 1.550
1870—1871	£ 3.279
1874—1875	£ 4.590

The Letter-foundry comprehends the following dependencies: Engraving, galvanoplastic and galvanographic compartment; Letter-foundry and stereotypy; mechanic locksmiths' shop. 52 individuals are now there employed, viz: Engraving compartment, 1 Manager; 1 Assistant punch-cutting; 2 Engravers. Foundry and Stereotypy, etc. 1 Manager; 1 Assistant; 20 Letter-founders; 21 apprentices and women; 3 Mechanic locksmiths and 2 Porters. Of the above 52 individuals 15 get wages, and 38 work by job, the maximum of the salary being 11 shillings daily and the minimum 2 shillings, the apprentices excepted.

There are in use for these various departments: Three magnificent Guilloché, Relievo and Pantograph machines, by Wagner, of Berlin; many apparatuses for Galvanoplastic and Galvanography; 1 Corner's stamp (Balancé); 2 Chalcographic presses, etc.; 4 common furnaces after the French and the German model; 14 Type casting machines (5 by Steiner of Munich, 6 constructed in the office after this system, 1 by Bauer of Frankfort, and 2 by Clowes & Sons, of London); 2 Stereotyping machines; 3 Stereotyping apparatuses, one included Iserman's of Hamburg; 6 Dressing, casting space rules, chamfering and bearding machines; 6 Dressing-benches to the types; 1 Circular saw; 1 Bench for drawing brass-rules; 2 Planing machines by Kisch, of Berlin, etc. In the respective repositories exist also 1.768 copper plates, some of them engraved by the celebrated Carneiro Silva and Bartolozzi; 8.000 ancient and modern punches; about 37.000 copper matrices, and 50.000 kilogrammes nearly of types and vignettes in store, to answer with expedition any demand or order.

From the last inventory it appears that the value of machinery, utensils and materials amounted in this office to £ 15.500.

By our Letter-foundry not only the Typographical establishments existant in the kingdom and its Colonies are furnished, but also many in the Brazil empire, whereto 84.958 kilogrammes had been exported from the year 1858 till 1875.

The Lithographical department is that of the latest date in our National Printing Office, as we have already said. Its first press was set up in 1836, when playing cards began to be printed by it, as a supposed appendage of the respective manufactory. But very soon it was discovered that it could not be rightly considered so; and thenceforth more attention began to be paid to it, the number of presses and their implements being therefore increased, and that of individuals accordingly. It was but late the economical year 1843-1844 that the produce of this office was found somewhat greater, however not above

£ 300. Afterwards it was gradually augmented, the average produce of it being in the last economical year (1874-1875) £ 1.600.

In this office 26 individuals are actually employed; in 1848 there were scarcely 5, and only 13 in 1856. That number comprehends: 1 Manager; 1 Assistant; 3 Draughtsmen and Engravers; 12 Printers; 3 Apprentices and 2 Porters, the maximum of the salary being per day 6 shillings, and the minimum 2 shillings. It is to be observed that at this office, as well as in the Typography and in the Type foundry, many artists are extraordinarily employed, such as Draughtsmen, Engravers, Colourists, Bookbinders, etc.

The Lithographic Offices, besides a great number of German, French and German stones and various other articles and material possesses: 15 Handpresses, from the most modern systems, constructed in Frankfort, Paris and at Lisbon also; 1 Cylinder mechanic press, by Sigl, of Berlin; 1 machine to rule the paper, by A. F. de Castro, another one to cut it; 1 Apparatus for printing in colours; 1 Guilloché machine by Le Templier, etc. The capital stock represented by this office, although of a late foundation, is above £ 2.000.

Here we now come to the playing cards manufactory annexed to the National Printing Office from 1769.

We have already mentioned that it proved till 1833 one of the most constant resources of our Establishment, notwithstanding the terms stipulated in the decree (July 31.st) by which the National Printing Office was obliged to bring to the Exchequer £ 2.334 yearly.

The manufactory beginning an active and laborious business in 1769, numbered yet in 1832 at its various compartments 18 individuals. However from the next following year, when the privilege enjoyed by playing cards made in this office was discontinued, that number decreased, being scarcely 9 in 1838, and only 6 in 1840; and even on some occasions it arrived that one single workman answered quite enough the quantity required for sale! In 1857 the manufactory fell in its utmost decay, the income being £ 50 nearly!

The circumstances that contributed more to this pitiful result were: the cessation of the exclusive privilege, which occasioned many other manufactories to be erected, all striving to furnish a plentiful market; and the imposition of a heavy tax (40 réis) upon each pack of cards, an impost the fiscal superintendency of which, extremely difficult, almost exclusively injured the produce of our State's manufactory, the first concerned as it should be in setting an example of a scrupulous observance of the law. The administration however, notwith-

standing the little reference between the manufactory of playing cards and the Typography, not thinking it decorous to suffer its undergoing a total annihilation, resolved to apply the fittest means of making it revive: such was to reduce as much as possible the price, and to introduce into the manufacture of this article such improvements as seemed adequate.

The effects of these means tending to the purpose was immediately felt: the playing cards were manufactured to such a degree of perfection as made them to be preferred not only to those of national, but even of foreign manufactories. The demands augmented, and consequently, the necessity of more workmen, and the receipts amounted the year 1861 to £ 500 nearly. Unfortunately the re-establishment of the heavy tax on playing cards abolished by decree of December 10.th 1861 permits not that the improvement of the manufacture, warrant a flattering future for this office, though we must observe that neither its progress nor decline can influence the condition of the Institution in general.

Here we shall put an end to the shortest statements we were able to produce of many explanatory indications we thought essential to the perfect knowledge of the history, constitution, artistical means and finally the improvements and the whole importance of the National Printing Office, an establishment which so undeniably influences the development of every branch of graphical arts.

CATALOGUE OF THE PRODUCTS EXHIBITED

Typography

Common and illustrated books

Principios de Optica, por Francisco da Fonseca Benevides.
1868. 8.º

Aplicações da geometria elementar, por J. M. Couceiro da
Costa. 1871. 8.º

Tratado de trigonometria rectilinea, por J. M. Couceiro da
Costa. 1870. 8.º

Elementos de chimica moderna, por Antonio Xavier Correia
Barreto. 1874. 8.º min.

Curso de physica elementar, compilado por Joaquim Rodrigues
Guedes. Nova edição refundida. 1868-1872. 3 vol. in-8.º

The five works above mentioned are profusely illustrated with woodcuts, by Baptista Coelho, C. Alberto, A. C. Barreto, etc.

Historia da guerra civil e do estabelecimento do governo parlamentar em Portugal, por Simão José da Luz Soriano. Segunda epocha. Tomos 2.º e 3.º 1871-1874. 2 vol. in 8.º

The most important and complete history that has ever been published about the famous Peninsular war, illustrated with several charts and plans of battles and sieges.

A vinha e o vinho em 1872, Relatorio, por A. Batalha Reis.
1873. 8.º

Illustrated with woodcoots, by J. Pedroso, etc.

Christianismo e Progresso, por D. Antonio da Costa. 2.^a edição, 1875. 8.º

Codigo commercial de signaes para uso internacional. 1868.
8.º gr.

Edition illustrated with woodcuts and many plates representing the pavilions of the different nations, printed in colours at the Degener & Weiler Liberty treadle job printing machine.

Apontamentos para o estudo de clinica medica, por A. J. de Faria. 1872. 8.º

Historia ecclesiastica ultramarina, pelo Visconde de Paiva Manso. 1872. Tomo 1.º

Bullarium Patronatus Portugalliae regum in Ecclesiis Africae, Asiae atque Oceaniae, bullas, brevia, epistolas, decreta, actaque Sanctae Sedis ab Alexandro III ad hoc usque tempus amplectens, curante Levy Maria Jordão. 1868-1870. 2 vol. 4.º min.

The *Ultramarine ecclesiastic history* as well as the *Bullarium*, precious elements for the Portugal and its Colonies history, contains several rarest documents in foreign characters, viz: Arabian, Syrian, Ethiopian, etc.

Elementos de grammatica grega, ordenados pelo professor de lingua grega no lyceu nacional do Porto. 1871. 8.º

An excellent *compendium* of the Greek language, lately adopted by the Government.

Manual encyclopedico por Emilio Achilles Monteverde. 10.ª edição. 1874. 8.º min.

Methodo facillimo para aprender a ler, etc. por Emilio Achilles Monteverde. 11.ª edição. 1874. 8.º min.

Of the *Manual* 45.000 copies were printed (price 2 shillings); and of the *Methodo facillimo*, 150.000 (price 6 pence). These two works are destined for elementary schools.

Descripção geral e historica das moedas cunhadas em nome dos reis, regentes e governos de Portugal, etc. por Augusto Carlos Teixeira de Aragão. 1875. 4.º min.

Illustrated with many engravings and plates representing a multitude of medals and coins.

Jerusalem, por Joaquim Pinto de Campos. 1874. 4.º min.

Excerptos historicos e collecção de documentos relativos á guerra denominada da Peninsula, etc. por Claudio de Chaby. Tomo 3.º 1871. 4.º min.

Very curious *Essay* upon one of the most curious periods of the Portuguese history, illustrated with many portraits, plates, plans of battles, etc.

Calendario hebraico para el año de la creacion del mundo 5629-30 y de la E. C. 1869. 1868. 8.º

Didascalia AEthiopum (Desumpta ex editione Londinensi Thomae Pel Platt., 1834). 1875. 4.º min.

The *Didascalia AEthiopum* is the first *fasciculum* of a great and curious work upon the history of the Portuguese oriental church, ordered by His Most Faithful Majesty's Government.

Cancioneiro d'Evora, publié d'après le manuscrit original et accompagné d'une notice littéraire historique par Victor Eugène Hardung. 1875. 8.º

Plano geral das obras que convem levar a effeito na margem do Tejo, etc. 1874.

Orçamento geral e propostas de lei da receita e despesa do Estado na metropole para o exercicio de 1876-1877. 1875. Fol.

Relatorio, propostas de lei e documentos apresentados na camara dos senhores deputados da nação portugueza em sessão de 11 de janeiro de 1876. 1876. 4.º

Relatorio e documentos dos actos do ministerio da fazenda durante o anno de 1875. 1876. 4.º

Contas da gerencia do ministerio dos negocios estrangeiros no anno economico de 1873-1874. 1875. Fol.

Ditas do dito da guerra no anno economico de 1874-1875. 1875. Fol.

Ditas do dito do reino no anno economico de 1874-1875. 1875. Fol.

Ditas do dito das obras publicas, commercio e industria no anno economico de 1874-1875. 1876. Fol.

Relatorio e contas da gerencia da Santa Casa da Misericordia de Lisboa no anno economico de 1874-1875. 1875.

The *Orçamento geral* and the seven other books above named are only exhibited as a specimen of public administration works, which are always executed with the utmost celerity.

A New Dictionary of the Portuguese and English Languages, by D. José de Lacerda. 1866-1871. 4.º 2 vol. in 4.º min.

The Lacerda's Dictionary is the best of the Portuguese and English languages that we have now. Price £ 2. 6 the two parts.

The National Printing Office. An historical and statistical Notice. 1876. 8.º

Liturgical works

Missale Romanum ex Decreto Sacrosancti Concilii Tridentini restitutum, S. Pii V jussu editum, Clementis VIII et Urbani VIII auctoritate recognitum. 1867. Fol.

Breviarium Romanum ex Decreto Sacrosancti Concilii Tridentini restitutum S. Pii V Pont. Maximi jussu editum, Clementis VIII et Urbani VIII auctoritate recognitum, cum officiis sanctorum novissimis per Summos Pontifices usque ad hanc diem concessis, juxta sancitas leges revisum in quatuor anni tempore divisum. 1876. 4 vol. 8.º gr.

The two great liturgic works above named were executed on the cylinder simultaneous two colours printing machine by Dutartre. From the *Missale* 3.000 co-

pics were printed, and 6.000 from the *Breviarium Romanum*. In these two editions which are the property of the National Printing Office £ 6.000 nearly were spent.

Fine and Handsome editions

Carta constitucional da monarchia portugueza. 1867. Fol. gr.

Only a very small number of copies of the Portuguese Charter were executed on great vellum paper; all the pages are ornamented with vignettes, printed on blue colour.

Carta constitucional da monarchia portugueza. 1867. Fol.

Exemplar printed on parchment.

Delphina do mal, poema por Thomaz Ribeiro. 1868. 8.^o maj.
Obras de Luiz de Camões, precedidas de um ensaio biographico pelo Visconde de Juromenha. 1860-1869. 6 vol. in 8.^o

Copy on vellum paper of the more complete and certainly the best edition of the works of the famous Portuguese epic. The 6.th volume, containing the celebrated poem the *Lusiadas*, is profusely illustrated with a portrait, several fac-similes, etc.

Estatistica de Portugal. Censo da população em 1864. 1868. Fol.

Recreio Apollineo, jornal do pianista amator. 1870. Fol.
Musicas e canções populares, eolligidas da tradição por Adelino Antonio das Neves (Filho). 1872. 8.^o

We call the attention of Typographers and Printers to the execution of these two works, particularly the *Recreio Apollineo*.

Homenagem da Imprensa Nacional de Lisboa a Sua Magestade Imperial D. Pedro II, imperador do Brasil. 1872. Fol.

Beautiful specimen of handsome colour printing.

Specimen da Fundição dos Typos. 1876. Fol.

Our Type-foundry Specimen now disposed on a new and more regular plan, contains: 84 series of Roman and Italic characters; 463 ditto of ornamented types; 30 ditto of Gothic, German, Greek, Hebrew, Syrian, AEthiopic characters; 895 ditto of vignettes, corners and decorations; 196 arms, trophies, zodiacal signes, many ornamental rules of every style, etc., etc. Eight series of roman and italic characters are originally engraved at our office, as well as 92 series of ornamental types and multitude of vignettes, coins, ornaments, trophies, etc. The typographic composition of this remarkable work was executed by A. C. Pereira da Cunha and his Assistant F. G. Tito; the printing by J. F. Saraiva, F. P. Nogueira, J. Leonardo da Silva, Manuel A. da Silva, M. J. Spinola, Fernando de Mello e J. M. da Cruz.

Ignez de Castro, episodio extrahido do Canto III do poema epico os Lusiadas, por Luiz de Camões. 1873. Fol.

Polyglot edition in fourteen languages, viz: Portuguese, Latin, Spanish, French,

Italian, English, German, Dutch, Swedish, Danish, Hungarian, Techeque, Polish and Russian. Executed carefully, this edition of so precious an episode of the magnificent Camões epopea is illustrated with a beautiful portrait of the Poet, engraved on copper by J. P. de Sousa, Professor of the Lisbon Royal Fine Arts Academy. In a small number of copies the pages have been garnished with brass rules printed on gold and blue.

Artes e Lettras, jornal illustrado. 3.^a Serie. 1875. 4.^o

The *Artes e Lettras* is a monthly review, carefully illustrated with large engravings on wood by the most celebrated Portuguese artists.

Almanach das Artes e Letras para 1876. 1875. 4.^o

Amor y Martirio, Leyenda de costumbres en verso, por Don Publio Hurtado. 1874. 8.^o

Type foundry

Engraving Compartment

Four collections of original Letter-punches.

One Copperplate as a specimen of Engraving in the mechanical way executed by Wagner's Guilloché machine.

Two elliptic frames containing the galvanic copies of four prize medals obtained at different International Exhibitions as well as of the Legion of honour Cross.

Eight Galvanic copper matrices from these medals.

One plate engraved by Zincographic process representing a Geographical Chart of Portugal.

Three Heliographic plates representing the Heidelberg Castle in Germany, the side door of Santa Maria de Belem church, and a view from the Convent of Christ at Thomar.

A Graphic Album of the Engraving Compartment containing:

- 1 Specimen of Guilloché work for Copperplate printing process.
- 2 Specimen of Guilloché work for typographic colours printing process.
- 3 to 21. Specimens of different Credit-papers and Bonds for Bankers establishments.

The plates for the ground marks from these Specimens are executed on mechanical way partly by Guilloché machine, the engraving by etsching and partly by handwork.

22 to 24. Specimens of Relievo copying work for ground plates.

The plates are executed on zinc by the chemityping process applied for letterpress printing.

25 to 26. Specimens of Zineographie process.

This process is supplied for cheap illustrations and the plates used for typographic printing machine.

27 Specimen of Postage-Stamp.

The plates used for printing has been produced by electrotyping process.

28 till 38. Specimens of Heliographic process: viz. A Group of Ciganos from the Southern Provinces of Portugal; a Portrait taken by life; ditto (instantaneous); an Anatomy taken from an Engraving; the Convent of Batalha; the Pena Castle at Cintra near Lisbon; the front of the Church of the Convent of Christ at Thomar; a view of the Convent of the Holy Heart of Jesus Christ in Lisbon; the side door of Santa Maria de Belem Church; a Hanger, ehiseled in silver by a Portuguese distinguished artist; the Heidelberg Castle in Germany.

All the plates executed by heliographic process have been produced by means of gelatine, bichromate and electrotyping. The engravings obtained by this process produce all the effects and half-tints of the photographic image. The proofs are taken by copperplate printing.

Letter-foundry Compartment

One box containing several Specimens of Brass and ornamental rules of every style.

One ditto with a complete set of Brass hooks of different sizes from 6 Didot's points till 600.

One ditto with the Arms of many European and American Nations copper clichés set up on metal, the original being engraved on wood.

Two mechanical brass and iron matrices for casting type of great measure.

Experience has plainly shown the usefulness of these mechanical matrices.

One letter east on type metal as a sample of the efficiency of such matrices.

One needle's square for visiting the matrices.

One copper cliché of a wood engraving by Nogueira da Silva.

The attention of the Type-founders is called upon the method of fixing this cliché.

Two copper clichés set up on wood (Steamers).

One ditto from wood engraving of the side door of Santa Maria de Belem church.

One engraving on wood by Cactano Alberto da Silva.

One small iron frame with four stereotypic plates ready to print.

We also call the attention of the Typographers upon our metal systematic furniture, as well as upon the method of fixing the stereotyping *clichés*.

Lithographic Office

One volume containing many Musical pieces, drawn on autographic paper by F. P. Themudo and J. J. Mariares.

Album of the lithographic compartment. It contains 29 maps, plans, specimens of chromo-lithography, etc., viz.

A Map of Portugal and its Colonies (coloured), by Hugo Goodair de Lacerda.

A plan of Saint Ubes harbour.

Ditto of the bar of Aveiro.

Ditto of the field of the great battle at Bussaco, to illustrate Soriano's *History of the Peninsular war*.

Ditto entitled *Borrador topografico de la línea divisoria*.

Ditto of S. Paulo de Loanda, capital of the Portuguese Colonies in Western Africa.

Ditto of the Damaun's territories (Portuguese Asiatic province).

A Chart of Africa to illustrate the Voyages of Livingstone.

A Chart of Zambezia great territory (Portuguese Eastern Africa) dressed by the late Marquis of Sá da Bandeira.

Ditto of Portugal to illustrate Soriano's *History of the Peninsular war*.

General Chart of Portugal and Spain to illustrate a memoir concerning the Beira Alta and Beira Baixa railway lines.

A plan of the Tagus river from Salvaterra fields to the Carregado.

Chorographical plant of the royal great park at Cintra, propriety of His Majesty the King D. Fernando.

Graphic plans of the hydrometers established at the river Tagus near Santarem (coloured).

A little Geographic Chart of Portugal (Chromolithographie).

Ditto orographical, by B. B. Gomes (ditto).

Great Chart of the Angola province (Western Africa), dressed by the late Marquis of Sá da Bandeira and Fernando da Costa Leal (ditto).

Fac-simile of an ancient Chart from the ms. Atlas of Diogo Homem, 1558 (ditto).

Ditto of an ancient Mappamundi (ditto).

Ditto of a map from a very ancient ms. Atlas entitled *Insularum illustratum Henrici Martelli Germani* (ditto).

Fac-simile from an ancient map of Santa Catharina Island, with a view of several Portuguese men of war (ditto).

Portrait of the Cardinal Saraiva (D. Fr. Francisco de S. Luiz).

Ditto of Victor Emmanuel, King of Italy.

Fac-similes of three ancient Copper engravings illustrating the new edition of the curious *Miscellanea* of Miguel Leitão de Andrade.

Copy on chromo-lithography of a Roman mosaic discovered near Leiria by Mr. Possidonio da Silva, an Architect, President of the Portuguese Architects and Antiquaries Society.

Ditto of a funeral urn from the Roman necropolis discovered near Alcacer do Sal.

Two Muttons of Algeria. Chromo-lithographie from a Memoir upon Agricultural Oeconomy.

Chromo-lithography representing the Chalet of the Countess of Edla, at the great park at Cintra.

Playing cards manufactory

Three packs of Playing cards for commerce. Price 6 sh. 6 p. each pack, the tax of 2 sh. 2 p. per pack excepted.

These playing cards are carefully prepared on the best Italian paste-board.

A List of the Employees, Managers, Assistant-managers and workmen to whom was intrusted the superintendency or the execution of the several objects exposed at the Philadelphia Universal Exhibition by the National Printing Office.

Typography

Director, João Manuel de Freitas.

Sub-Director, Mauricio José Dias.

Manager of the Composing School, Augusto Cesar Pereira da Cunha.

Assistant, Francisco Guilherme Tito da Silva.

Charged with the management of the composing foreign languages new section, João Augusto da Graça Barreto.

Manager of the Printing Handpress compartment, Joaquim José das Neves.

Assistant, Francisco de Paula Nogueira.

Manager of the Printing School, João Francisco Saraiva.

Manager of the Printing machines compartment, José Bento Esteves.

Pressmen, Antonio Joaquim Evaristo de Macedo, Fernando de Mello, Joaquim Leonardo da Silva, Joaquim Maria da Cruz, Manuel Antonio da Silva e Manuel José Spinola.

Type foundry

Engraving, galvanoplastic and galvanographic compartment

Manager, Joseph Leipold.

Assistant, Domingos Venancio.

Engravers, Julio Cesar Cosmelly e Caetano Alberto da Silva.

Letter-foundry and steotypy compartment

Manager, Ignacio Lauer.

Assistant, Duarte Fernando Pinto Malaquias.

Locksmith, Carlos Filippe Charbel.

Lithography

Manager, Matheus Ollegario da Costa e Sousa.

Assistant, José Callaya.

Engravers and Designers, Alfredo José Correia, Antonio Correia Barreto, Augusto Luiz Nunes de Carvalho, João Fradique de Moura Palha e José Maria Cabral Calheiros.

Pressmen, Antonio José Simões, Augusto Figueira Freire e José Carlos de Assumpção Guerra.

Bookbinding

Manager, Antonio Augusto da Silva.

Bookbinders, Ferin & C.^a and Lisboa & C.^a

For collecting and superintending all the works and other objects presented at the Philadelphia Exhibition, was appointed F. Pereira e Sousa, Employee of the General Administration, a Journalist, Member of the International Jury at the Oporto exhibition (1865). This Employee was also charged to superintend and collect all the products presented at the London, 1862, Oporto, 1865, Paris, 1867 and Vienna, 1873, Universal exhibitions, where the Lisbon National Printing Office obtained the first premiums.